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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/715,870	11/15/2000	Steve Granick	10322/9	7651

7590 01/10/2003

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EXAMINER

ZACHARIA, RAMSEY E

ART UNIT	PAPER NUMBER
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1773

13

DATE MAILED: 01/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/715,870

Applicant(s)

GRANICK ET AL.

Examiner

Ramsey Zacharia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 32-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-31, in Paper No. 12 is acknowledged.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 13 February 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it does not contain the publication date of reference A21 [see 37 CFR 1.98 (b)(5)]. It has been placed in the application file, but reference A21 has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Benjamin et al.

(*Journal of Materials Chemistry*, **8**(4), 1998, pp. 919-924).

Benjamin et al. teach a multilayer film comprising polyethyleneimine, polystyrenesulfonic acid sodium salt, and a functional derivative of polyphenylenevinylene applied to a glass substrate (page 942, column 1, paragraph 2). Hydroxyl or carboxylic acid groups are suitable functional groups for the functional derivative of polyphenylenevinylene (page 920, scheme 1, and column 1, paragraph 1). The layers are held together with hydrogen bonding interactions (abstract). The polyethyleneimine reads on the first polymer because it contains an N-H hydrogen bond donating group in its repeat unit. The functional polyphenylenevinylene reads on the second polymer because it contains O-H (for hydroxyl functional group) or O-H and C=O (for carboxylic acid functional group) hydrogen bond accepting groups in its repeat unit. Moreover, carboxylic acid is a charge forming acid group. The polystyrenesulfonic acid sodium salt reads on the agent of claims 22, 24, 26, 28, and 30.

Regarding claims 23, 25, 27, 29, and 31, these claims merely that the agent be a "bioactive agent" without specifying the degree or type of bioactivity exhibited by the agent. Polystyrenesulfonic acid sodium salt reads on the bioactive agent of these claims since polystyrenesulfonic acid sodium salt should have at least some affect on a biological system.

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5. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Opolski (U.S. Patent 6,238,799).

Opolski teaches a coating composition comprising a supporting polymer having functional groups and a hydrophilic polymer (column 2, lines 43-53). The two polymers are bonded together at least in part by hydrogen bonds (column 4, lines 27-32). The composition may contain an additive, such as a bioactive agent (column 3, lines 22-28). The coating may be applied over a substrate (column 9, lines 7-20). In the embodiment of Example 2, the supporting polymer is an acid functionalized polyacrylate and the hydrophilic polymer is polyvinylpyrrolidone. Acid functionalized polyacrylate reads on the hydrogen bond donating polymer (with O-H groups) and polyvinylpyrrolidone reads on the hydrogen bond accepting polymer (with C=O groups).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (703) 305-0503. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for non after-final correspondences and (703) 872-9311 for after-final correspondences.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'RZ', with a stylized flourish extending to the right.

Ramsey Zacharia

Patent Examiner

Technology Center 1700

1/8/03